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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,481	06/23/2005	Akihiro Kodama	2005_0982A	2981

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WENDEROTH, LIND & PONACK, L.L.P.
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EXAMINER

NORMAN, MARC E

ART UNIT	PAPER NUMBER
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3744

NOTIFICATION DATE	DELIVERY MODE
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03/25/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/540,481	Applicant(s) KODAMA ET AL.	
	Examiner Marc E. Norman	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/23/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/23/05; 8/31/05</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al. (U.S. Patent 6,609,387 B2).

As per claim 1, Sasaki et al. teach a control device for an auger type ice making machine comprising a driver circuit, a voltage detector (column 2, line 25), and a current detector (column 2, lines 21-22). Sasaki et al. also teach stopping operation when the sensed current is above a threshold value (see for example column 2, lines 26-31). Sasaki et al. further recognizes that the current supplied to the motor is influenced by changes in voltage and must be adjusted accordingly (column 2, lines 43-49). It would have been obvious to one of ordinary skill in the art at the time the invention was made, given the teachings of Sasaki et al., to stop the drive

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motor at different current thresholds according to different voltage levels for the purpose of compensating for this known relationship between voltage and current in order to protect the drive motor.

As per claims 2 and 3, Sasaki et al. further teach performing the control to avoid stopping the system during startup (column 2, lines 49-52). Official notice is taken that either ignoring or raising the threshold level are means to achieve this end that would have been obvious options to one of ordinary skill in the art as simple control techniques involving predictable results.

As per claim 4, Sasaki et al. teaches the control steps as already discussed with regard to claim 1, above, and further teaches performing the controls based on the rotation state of the auger rather than a sensed current condition (column 5, lines 54-62). It would similarly have been obvious to one of ordinary skill in the art at the time the invention was made, given the teachings of Sasaki et al., to stop the drive motor at different rotation states according to different voltage levels for the purpose of compensating for the relationship between voltage and rotation state in order to protect the drive motor.

As per claims 5 and 6, see similar claims 2 and 3. Again, official notice is taken that either ignoring or raising the threshold level to avoid stopping the system during startup would have been obvious options to one of ordinary skill in the art as simple control techniques involving predictable results.

As per claims 7 and 11, Sasaki et al. teaches the control steps as already discussed with regard to claims 1 and 4, above, and further teaches reducing (e.g. stopping) the refrigeration system when the detected value surpasses the threshold (column 5, lines 60-62). While the discussion is in terms of a sensed rotation state of the auger rather than a sensed current, official

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notice is taken that it would have been obvious as a matter involving predictable results to also perform this step under the current sensing scenario in order to reduce stress on the system and help protect the drive motor.

As per claims 8-10 and 12-14, official notice is taken that reducing condenser fan speed, reducing compressor speed, and performing a compressor by-pass (see for example compressor by-pass arrangement of Vaisman) are all well known ways of reducing the cooling capacity of a refrigeration system that would have been obvious to one of ordinary skill in the art for the purpose reducing stress on the ice making mechanism.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc E. Norman whose telephone number is 571-272-4812. The examiner can normally be reached on Mon.-Fri., 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MN

/Marc E. Norman/

Primary Examiner, Art Unit 3744